REMARKS

By this amendment, independent claims 20, 25, and 29 have been amended, and claims 21, 23, 26, 30, 32, and 33 have been canceled. Support for the amendments can be found at, *inter alia*, page 12, lines 22-23, and page 15, line 21 – page 17, line 19, of the specification. Claims 20, 22, 24, 25, 27-29, and 31 are presented for further examination.

The rejection of claims 20-33 under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,136,654 ("Kraft") in view of JP2000-294550 ("Murakawa") is respectfully traversed with respect to the amended claims.

Kraft discloses forming an insulating layer on a semiconductor structure and subjecting the insulating layer to a plasma, preferably at a process pressure of 1 to 50 mTorr (0.13 to 6.7 Pa). (Column 4, Lines 7-8). Applicants respectfully submit that when an oxide film is irradiated by plasma under such a low pressure, the oxide film suffers damage by the kinetic energy of the plasma. (See, for example, Page 23, Lines 5-20, and FIG. 9, of the Present Specification).

The Office Action refers to column 5, lines 28-45, along with FIGs. 5-6, of Kraft. Applicants point out that column 5, lines 28-45, and FIGs. 5-6, of Kraft refer to the analysis of an oxide film nitrided at a pressure of 4 mTorr (0.53 Pa). In contrast, the present claims require that the plasma is irradiated on the oxide film under a pressure of 7 to 260 Pa.

Applicants respectfully submit that neither Kraft nor Murakawa, cited for disclosure of "a nitriding process using an electron temperature of about 1 eV or

less [and] using nitrogen gas with noble gases, such as argon" (Office Action, Page 3), discloses or suggests the processes recited in independent claims 20, 25, and 29, each of which recites, *inter alia,* that the plasma is irradiated on the oxide film under a pressure of 7 to 260 Pa, a nitrogen atom content in the oxynitride film has a distribution such that the maximum value Ns of the nitrogen atom content in the oxynitride film at a surface of the oxynitride film opposite a surface facing the substrate is 10 to 40 atomic percent, and the maximum value Nb of the nitrogen atom content in the oxynitride film at the surface facing the substrate side is 0 to 10 atomic percent, and the ratio Ns/Nb is 2 or more.

As explained at page 6, lines 5-14, of the present specification, the electronic device material of the present invention can have excellent properties (for example, barrier property to boron) by virtue of a high N-atom concentration portion formed in the silicon oxynitride film constituting the electronic device material and also, can be prevented from deterioration of properties (for example, mobility) at the interface of silicon oxynitride film/electronic device substrate by virtue of the presence of a low N-atom concentration portion in the nitrogen content distribution.

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #101249.55470US).

Respectfully submitted,

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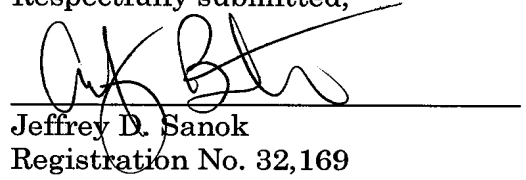

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